

**CITY OF COLUMBIA, MISSOURI
WATER AND LIGHT DEPARTMENT**

FIBER OPTIC CABLE INSTALLATION AND USE

September 28, 1998

Number of strands	Date installed	Length
24 strand	1994	22,800 feet
36 strand	1995	9,300 feet
24 strand	1997	182,754 feet
	Total	214,854 feet

Dark strands are in service for the utility use.

Dark strands have been leased to University of Missouri and Columbia School District

We have approximately 60% idle fiber

CITY OF SIKESTON FIBER OPTICS

On the morning of September 28, 1998, I called Sikeston Utilities to confirm their involvement with fiber optics and telecommunications. I talked with Wayne McSpadden at (573) 471-3328. I was advised as follows:

- Sikeston does not have fiber installed at the present time. They are ready to issue a request for proposal with the intent to contract for the installation of 30 miles of fiber within the city limits of Sikeston. I understand this RFP is to go out before the end of the year.
- Their plan is to install fiber consisting of between 6 strands and 196 strands, depending upon the location of the fiber.
- At the present time, approximately 10 percent of the fiber will be utilized for utility/city purposes and 90 percent will be available for other use.
- It is their intent to utilize the fiber within the confines of House Bill 620, however, because of the excess capacity, which, by the nature of fiber, will be available, Sikeston is very hopeful they will be able to fully utilize their fiber assets at sometime in the future.



Memo To: Todd Murren
From: Chris Yates
Date: October 1, 1998
Subject: Fiber optic cable plant utilization.

Per your request here is the City Utilities fiber optic cable plant construction summary.

Year	Cable Miles	Strand Miles
1988	23	184
1989	0	0
1990	0	0
1991	35	1050
1992	40	1200
1993	40	984
1994	16	192
1995	40	660
1996	0	0
1997	15	522
1998	22	660
Total:	231	5452

Of this 5452 strand miles, City Utilities is currently utilizing 1501 strand miles for internal communications.

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ATTACHMENT E



EDISON ELECTRIC INSTITUTE

**1997
FINANCIAL
REVIEW**

ANNUAL REPORT OF THE INVESTOR-OWNED ELECTRIC UTILITY INDUSTRY

DIVERSIFICATION

Utilities are diversifying into businesses outside of their traditional operations in anticipation of earning the higher returns associated with less regulated businesses. Diversification offers an opportunity to gain additional customers beyond the boundaries of the traditional service territories, an aspect that will become more important as national competition increases. Utilities are diversifying by starting-up new business segments, acquiring unregulated companies, providing equity investment, or participating in joint ventures. Virtually all investor-owned electric utilities now have some form of diversified operations under their corporate umbrellas.

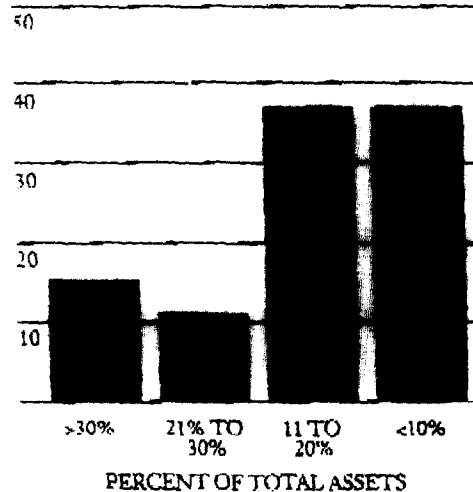
Diversification implies that utilities are straying away from their core activities; however, this is not the case. Often utilities' diversified efforts are

closely associated with the core electricity business and energy-related efforts. A 1996 EEI diversification study found that close to 80 percent of utility diversification since 1992 has been directly related to core business experience. During the period of 1992-1997, non-utility asset growth for investor-owned companies has averaged an estimated 18 percent a year and shows no signs of slowing down.

One of the prominent areas for diversification is telecommunications. Telecommunications is attractive to utilities because it offers new earnings potential as well as an opportunity to establish connections with new customers. This provides an opportunity to develop a new customer relationship and the potential for offering further integrated energy services. Telecommunications can range from traditional local phone service to personal communications services (PCS), interactive

DIVERSIFIED ASSETS AS A PERCENT OF TOTAL ASSETS

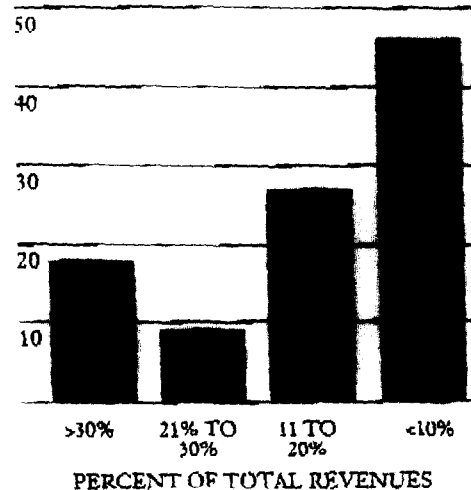
PERCENTAGE OF COMPANIES
SEPARATELY DISCLOSING
DIVERSIFIED ASSETS



Source: Price Waterhouse 1997 Survey

DIVERSIFIED REVENUES AS A PERCENT OF TOTAL REVENUES

PERCENTAGE OF COMPANIES
SEPARATELY DISCLOSING
DIVERSIFIED REVENUES

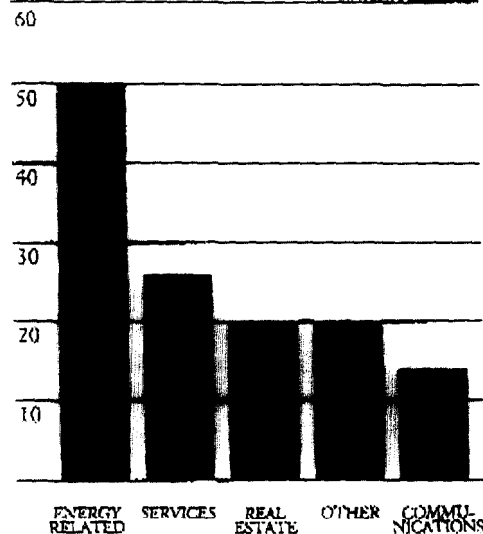


Source: Price Waterhouse 1997 Survey

shopping, home automation, satellite systems, and Internet access. Both the EPAct and the Telecommunications Reform Act of 1996 facilitated the expansion of utilities into telecommunication businesses. Additionally, utilities already have significant telecommunication infrastructure in place, in the form of large fiber-optics networks that they built for their own internal use. These fiber-optics networks and utilities' rights of way are valuable for expanding telecommunication services into new regions. Currently, more than half of investor-owned utilities have a telecommunication-related subsidiary as part of their corporate structure. These subsidiaries are primarily involved in energy management, automated meter reading, and power quality monitoring.

CATEGORIES OF UTILITY DIVERSIFICATION

NUMBER OF COMPANIES



Source: Price Waterhouse 1997 Survey

Utilities are also investing in other telecommunication businesses, such as cable, home security, and computer firms. Cable and security businesses provide instant customer expansion through connections to customers' homes. Computer firms offer enhanced data networking with customers and Internet services. By developing contacts with customers through the channels these firms provide, there is an opportunity to introduce the customer to new products and services.

As the utilities sell more services, they are viewed as one-stop consumer service companies. With one-stop shopping, customers could be offered electric service, gas service, telephone service, cable television, and home security, to name a few. This will let customers have the convenience of dealing with only one provider of services instead of many.

ENERGY MARKET OPPORTUNITIES CREATED BY REGULATORY CHANGE

Regulatory change has not only altered the way investor-owned utilities are operating their traditional business functions, but it has also created additional diversified business opportunities. The Public Utility Regulatory Policies Act (PURPA) and the EPAct created new classes of unregulated generation and marketing entities. In response, many utilities have established affiliates to participate in these new businesses. Affiliates with independent power/cogeneration expertise are helping to retain industrial customers by building and maintaining generation facilities. Affiliated marketing entities are establishing investor-owned utilities as leading participants in the ever-growing wholesale electricity market. While the number of potential market participants is large, both the independent power